CLAIMS

What is claimed is:

1. A method for inhibiting the development of a cancer in a mammal, comprising administering to a mammal a cell adhesion modulating agent that comprises the sequence HAV within a cyclic peptide ring, and thereby inhibiting the development of a cancer in the mammal.

2. A method according to claim 1, wherein the cancer is selected from the group consisting of carcinomas, leukemias and melanomas.

3. A method according to claim 1, wherein the modulating agent comprises a sequence selected from the group consisting of CHAVC (SEQ ID NO:10), CHAVDC (SEQ ID NO:16), CHAVDIC (SEQ ID NO:31), CHAVDINC (SEQ ID NO:32), CHAVDINGC (SEQ ID NO:55), CAHAVC (SEQ ID NO:17), CAHAVDC (SEQ ID NO:19), CAHAVDIC (SEQ ID NO:18), CRAHAVDC (SEQ ID NO:20), CLRAHAVC (SEQ ID NO:21), CLRAHAVDC (SEQ ID NO:22), CSHAVC (SEQ ID NO:24), CHAVSC (SEQ ID NO:25), CSHAVSC (SEQ ID NO:26), CSHAVSSC (SEQ ID NO:27), CHAVSSC (SEQ ID NO:28), KHAVD (SEQ ID NO:12), DHAVK (SEQ ID NO:13), KHAVE (SEQ ID NO:14), AHAVDI (SEQ ID NO:23), SHAVDSS (SEQ ID NO:56), KSHAVSSD (SEQ ID NO:30) and derivatives of the foregoing sequences having one or more C-terminal, N-terminal and/or side chain modifications.

4. A method according to claim 1, wherein the cyclic peptide comprises an N-terminal acetyl group.

5. A method according to claim 1, wherein the cyclic peptide comprises the sequence N-Ac-CHAVC-NH_2 (SEQ ID NO:10).

6. A method according to claim 1, wherein the modulating agent is linked to a targeting agent.

7. A method according to claim 1, wherein the modulating agent further comprises one or more of:

(a) a cell adhesion recognition sequence bound by an adhesion molecule other than a classical cadherin, wherein the cell adhesion recognition sequence is separated from any HAV sequence(s) by a linker; and/or

(b) an antibody or antigen-binding fragment thereof that binds to a cell adhesion recognition sequence bound by an adhesion molecule other than a classical cadherin.

8. A method according to claim 7, wherein the cell adhesion recognition sequence comprises a sequence selected from the group consisting of NQK, NRN, NKD, EKD, ERD, DDK, EEY, EAQ, IYSY (SEQ ID NO:38), TSSY (SEQ ID NO:39), VTAF (SEQ ID NO:40), VSAF (SEQ ID NO:41), RGD and LYHY (SEQ ID NO:35).

9. A method according to claim 1, wherein the modulating agent is present within a pharmaceutical composition comprising a pharmaceutically acceptable carrier.

10. A method according to claim 9, wherein the pharmaceutical composition further comprises a modulator of cell adhesion comprising one or more of:

(a) a cell adhesion recognition sequence bound by an adhesion molecule other than a classical cadherin; and/or

(b) an antibody or antigen-binding fragment thereof that binds to a cell adhesion recognition sequence bound by an adhesion molecule other than a classical cadherin.

11. A method according to claim 10, wherein the cell adhesion recognition sequence comprises a sequence selected from the group consisting of NQK, NRN, NKD, EKD,

ERD, DDK, EEY, EAQ, IYSY (SEQ ID NO:38), TSSY (SEQ ID NO:39), VTAF (SEQ ID NO:40), VSAF (SEQ ID NO:41), RGD and LYHY (SEQ ID NO:35).

12. A method for decreasing the size of a tumor in a mammal, comprising administering to a mammal with a tumor a cell adhesion modulating agent that comprises the sequence HAV within a cyclic peptide ring, and thereby decreasing the size of the tumor in a mammal.

13. A method according to claim 12, wherein the modulating agent comprises a sequence selected from the group consisting of CHAVC (SEQ ID NO:10), CHAVDC (SEQ ID NO:16), CHAVDIC (SEQ ID NO:31), CHAVDINC (SEQ ID NO:32), CHAVDINGC (SEQ ID NO:55), CAHAVC (SEQ ID NO:17), CAHAVDC (SEQ ID NO:19), CAHAVDIC (SEQ ID NO:18), CRAHAVDC (SEQ ID NO:20), CLRAHAVC (SEQ ID NO:21), CLRAHAVDC (SEQ ID NO:22), CSHAVC (SEQ ID NO:24), CHAVSC (SEQ ID NO:25), CSHAVSC (SEQ ID NO:26), CSHAVSSC (SEQ ID NO:27), CHAVSSC (SEQ ID NO:28), KHAVD (SEQ ID NO:12), DHAVK (SEQ ID NO:13), KHAVE (SEQ ID NO:14), AHAVDI (SEQ ID NO:23), SHAVDSS (SEQ ID NO:56), KSHAVSSD (SEQ ID NO:30) and derivatives of the foregoing sequences having one or more C-terminal, N-terminal and/or side chain modifications.

14. A method according to claim 12, wherein the cyclic peptide comprises an N-terminal acetyl group.

15. A method according to claim 12, wherein the cyclic peptide comprises the sequence N-Ac-CHAVC-NH_2 (SEQ ID NO:10).

16. A method according to claim 12, wherein the modulating agent is linked to a targeting agent.

17. A method according to claim 12, wherein the modulating agent further comprises one or more of:

(a) a cell adhesion recognition sequence bound by an adhesion molecule other than a classical cadherin, wherein the cell adhesion recognition sequence is separated from any HAV sequence(s) by a linker; and/or

(b) an antibody or antigen-binding fragment thereof that binds to a cell adhesion recognition sequence bound by an adhesion molecule other than a classical cadherin.

18. A method according to claim 17, wherein the cell adhesion recognition sequence comprises a sequence selected from the group consisting of NQK, NRN, NKD, EKD, ERD, DDK, EEY, EAQ, IYSY (SEQ ID NO:38), TSSY (SEQ ID NO:39), VTAF (SEQ ID NO:40), VSAF (SEQ ID NO:41), RGD and LYHY (SEQ ID NO:35).

19. A method according to claim 12, wherein the modulating agent is present within a pharmaceutical composition comprising a pharmaceutically acceptable carrier.

20. A method according to claim 19, wherein the pharmaceutical composition further comprises a modulator of cell adhesion comprising one or more of:

(a) a cell adhesion recognition sequence bound by an adhesion molecule other than a classical cadherin; and/or

(b) an antibody or antigen-binding fragment thereof that binds to a cell adhesion recognition sequence bound by an adhesion molecule other than a classical cadherin.

21. A method according to claim 20, wherein the cell adhesion recognition sequence comprises a sequence selected from the group consisting of NQK, NRN, NKD, EKD, ERD, DDK, EEY, EAQ, IYSY (SEQ ID NO:38), TSSY (SEQ ID NO:39), VTAF (SEQ ID NO:40), VSAF (SEQ ID NO:41), RGD and LYHY (SEQ ID NO:35).